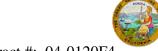
### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

# WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-029915 Address: 333 Burma Road **Date Inspected:** 09-Aug-2013

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

**CWI Name:** Bernie Docena **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes N/A No

34-0006 **Bridge No: Component:** SAS Tower

## **Summary of Items Observed:**

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At the Tower Base Electro Slag Weld (ESW) 'V' weld joint #W-043 face B, ABF welder Mike Jimenez was observed continuing to perform the excavation of the ESW at located at Y=5210mm to Y=5225mm due to UT detected rejects. The welder was noted using a die grinder to grind smooth the excavation after using the carbon air arc gouging. This excavation was performed per the approved Request for Weld Repair RWR#201305-009. ABF QC Bernie Docena was noted on site monitoring the excavation. After the excavation and grinding of the surface was completed, ABF QC Bernie Docena performed the test using Magnetic Particle Testing (MT). The result of the QC MT was deemed acceptable according to QC. This QA also performed the same test for the verification of the removal of all the indications and noted same results.

After the QA and QC acceptance of the excavation mentioned above, QA randomly observed the ABF welder Mike Jimenez perform 3G SMAW repair welding of the Ultrasonic Testing (UT) detected reject on the vertical weld of the ESW. The repair excavation is being welded per the approved Request for Weld Repair (RWR) #201305-009. The welder was observed welding in the 3G (vertical) position utilizing the Shielded Metal Arc Welding (SMAW) process with the 3/32" followed by the 1/8" diameter E7018H4R electrode as per the welding procedure ABF-WPS-D15-1000-R03 Repair. The repair excavation and the adjacent base metal were preheated to more than 350°F using Miller Proheat 35 Induction Heating System prior to and during the welding. During this shift, ABF QC William Sherwood was noted monitoring the workmanship and welding parameters of the welder.

## WELDING INSPECTION REPORT

(Continued Page 2 of 2)

Measured welding parameter during welding was 93 amperes on the 3/32" and 130 amperes on the 1/8" diameter E7018H4R electrode. At the end of the shift, 3G repair welding was still continuing and should remain tomorrow.

At the Tower Base Electro Slag Welding (ESW) F joint E-045 face A location Y=640mm to Y=840mm, QA randomly observed the ABF welder Donald Plum perform 3G SMAW welding repair on the Ultrasonic Testing (UT) detected reject on the vertical weld of the ESW. The repair excavation is being welded per the approved Request for Weld Repair RWR#201307-008. The welder was observed welding in the 3G (vertical) position utilizing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1000-R03 Repair. The repair excavation and the adjacent base metal were preheated to more than 350°F using Miller Proheat 35 Induction Heating System prior/during welding. During the shift, ABF QC William Sherwood was noted monitoring the workmanship and welding parameters of the welder. Measured welding parameter during welding was 126 amperes on a 1/8" diameter E7018H4R electrode. At the end of the shift, 3G repair welding was still continuing and should remain tomorrow.





### **Summary of Conversations:**

No significant conversation occurred today.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Gary Thomas 916-764-6027, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo, Joselito	Quality Assurance Inspector
Reviewed By:	Reyes, Danny	QA Reviewer